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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/852,866 | 05/10/2001 | Glenn E. Hoffman | 2950 | 5151 |

7590

07/30/2002

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EXAMINER

ANDREWS, MELVYN J

ART UNIT

PAPER NUMBER

1742

8

DATE MAILED: 07/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/852,866

Applicant(s)

HOFFMAN ET AL.

Examiner

Melvyn J. Andrews

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-21 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Newly submitted claim 21 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: as set forth below

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 12 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 to 20, drawn to a process, classified in class 75, subclass 751.
- II. Claim 21, drawn to composition, classified in class 75, subclass 319.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process. For example, a process comprising combining iron bearing materials, a reductant and cellulose fiber with up to 15% water to form a mixture which is compacted and may be heated.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Art Unit: 1742

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 to 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avotins et al (US 5,464,465). Avotins et al discloses a process for producing agglomerates comprising iron ore (col.14, line 55) and paper fibers and coke breeze ^{col 16} (col.6, lines 7 to 11) although the expression cellulose fiber is not explicitly disclosed by Avotins et al it is obvious to one of ordinary skill at the time the invention was made that paper fibers are the equivalent of cellulose fibers as admitted by applicants in Claim 16; it is noted that the limitation "with up to 15% water" includes a lower limit of zero. With respect to Claim 18 Avotins et al discloses iron ore the having an average particle size (col. 7, Example 3) within the claimed range.. With respect to Claim 19 the concentration of paper fibers is not explicitly disclosed by Avotins et al but it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the concentration of paper fiber in the Avontins et al since it is a result effective variable as evidenced by Avotins et al which claims fibers comprise primarily acrylic fibers, and the balance of the fibers are selected from paper fibers (col.16, lines 7 to 11), *In re Antoni*, 195 USPQ 6. With respect to Claims 8, 9 and 17 Avotins et al

Art Unit: 1742

discloses that the product is suitable for L-D converters (col.4, lines 50 to 63) which produces steel.

Response to Arguments

Applicants' arguments filed May 7, 2002 have been fully considered but they are not persuasive.

Applicants argue that Avotins teaches away from the use of cellulosic fibers because they are too expensive is not persuasive of error in the rejection since Avotins explicitly claims a product wherein the fibers comprise paper fibers (col. 16, line 9) .

Claims 1 to 7, 10 to 16, 18, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowe (US 2,865,731). Crowe discloses a process for briquetting iron ore with cellulose fibers (col.4 , lines 6 to 9) which may be tested for heat resistance by heating up to 2000° F in such a way that plenty of time was allowed for the paper to burn out (col.3, lines 53 to 58) but does not specify the time and temperature claimed in Claim 1 but it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize these result effective variables ,
In re Antoni, 195 USPQ 6

Claims 8, 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crowe et al as applied to claims 1 to 7, 10 to 16, 18, 19 and 20 above, and further in view of Avotins et al. Crowe discloses a product suitable for feeding to blast furnaces (col.1, lines 15 to 19) but does not disclose that the product is supplied to a steelmaking process but Avontins et al disclose that a product produced from iron

Art Unit: 1742

bearing material and paper fibers is suitable to be used in blast furnaces as well as L-D converters (col.4, lines 50 to 63) which produces steel. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Crowe product which is also produced from an iron material and paper fiber to produce steel in an L-D converter since the Avotins et al product and Crowe product are obviously equivalent sources of iron.

Response to Arguments

Applicants' arguments filed May 7, 2002 have been fully considered but they are not persuasive. Crowe discloses that briquettes were formed employing a mold-and-piston type hydraulic hand press (col.2, lines 46 to 51) which is equivalent to a process of forming agglomerates by "high compression compaction"

Applicants' argue that Crowe does not disclose a low water content is not well taken because the claimed process does not exclude heating an agglomerate as evidenced by Claim 1, furthermore the expression "dry combining" as in Claim 14 is a relative term since the agglomerate may contain "up to 15% water" as evidenced by Crowe which discloses that ore as used, was slightly damp containing 14.8% moisture (col.2, lines 44 and 45).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 to 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "dry" in claims 1 and 14 is a relative term which renders the claim indefinite. The term "dry" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. A process comprising "combining in a dry form iron bearing materials, a reductant, and a cellulose fiber with 0 to 15% water" as in Claim 1 or by dry combining combining iron bearing materials, a reductant and a cellulose fiber with up to 15% water" as in Claim 14 are indefinite because the expression "dry" is not defined and the expression "0 to 15% water" does **not correspond to the specification**; also it is unclear with respect to what material or materials the water concentration is being measured.

Claim 19 is indefinite because the preference is indefinite MPEP 2173.05(d).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 1742

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvyn J. Andrews whose telephone number is 703-308-3739. The examiner can normally be reached on 8:00A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.


MELVYN ANDREWS
PRIMARY EXAMINER

mja
July 26, 2002